

Application No. 10/538,423  
Paper Dated: March 1, 2010  
In Reply to USPTO Correspondence of September 1, 2009  
Attorney Docket No. 4544-051674

### **REMARKS**

Claims 1 and 3-8 are currently pending in this application, with claims 1 and 3 being in independent form. Claims 1 and 3 are currently amended. Support for these amendments can be found, for example, on page 4, line 18–page 6 of the specification. No new matter has been added by these amendments. Removal of the rejections and allowance of claims 1 and 3-8 is respectfully requested.

### **Specification and Figures Objections**

The disclosure is objected to because the amino acid and nucleotide sequences of the *Porteresia coarctata* myo-inositol 1-phosphate synthase recited on page 4-5 of the substitute specification and in Figure 1 do not agree with each other. It is noted that nucleotides 67-69 of the nucleotide sequence are GAG, which are shown as encoding a tryptophan (W) residue, and residues 124-126 are TGG which are shown as encoding a histidine (H) residue. However, GAG is a codon for glutamic acid (E) not tryptophan and TGG is a codon for tryptophan (W) and not histidine. The specification has now been amended to clarify that nucleotides 67-69 (GAG) encode for (E) glutamic acid and residues 124-126, TGG code for tryptophan (W). Support for the amendments can be found, for example in FIG. 1 as filed.

### **Claim Objections**

The final Office Action objects to claim 2 for the use of parentheses surrounding the SEQ ID NOS. Because claim 2 was cancelled by the Amendment of April 23, 2009, Applicants believe that the objection was intended for claim 3. Claim 3 has now been amended to remove the parentheses from the SEQ ID NOS. Furthermore, the word “has” has been inserted prior to “a deduced amino acid sequence” in claim 3. Withdrawal of the objection and reconsideration of claim 3 is respectfully requested.

### **35 U.S.C. §112**

#### **35 U.S.C. §112, second paragraph**

Claims 1, 7 and 8 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention.

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The final Office Action states that claim 1 (upon which claims 7 and 8 depend) is indefinite and confusing in the recitation of “An isolated nucleic acid molecule for a salt tolerant L-myo-inositol 1-phosphate synthase from *Porteresia coarctata* comprising a nucleic acid sequence having at least 70% homology to SEQ ID 1 or a nucleic acid sequence having at least 70% homology to the nucleic acid sequence encoding the protein comprising the amino acid sequence of SEQ ID NO:3” as there is only a single salt tolerant L-myo-inositol 1-phosphate synthase from *Porteresia coarctata* (i.e., SEQ ID NO:3). Additionally, the final Office Action asserts that claim 1 is confusing in the recitation of “having at least 70% homology to the nucleic acid sequence encoding the protein comprising the amino acid sequence of SEQ ID NO:3.” In view of the current amendments to the claims, Applicants believe that claims 1 and 7-8 now comply with 35 U.S.C. §112, second paragraph. Withdrawal of the rejections and reconsideration of the claims are respectfully requested.

#### **35 U.S.C. §112, first paragraph**

##### **Written Description**

Claims 1, 7 and 8 are rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. The final Office Action contends that the specification as filed does not provide support for the current recitation in claim 1 (upon which claims 7 and 8 depend) of “having at least 70% homology to SEQ ID 1 or a nucleic acid sequence having at least 70% homology to the nucleic acid sequence encoding the protein comprising the amino acid sequence of SEQ ID NO: 3”. Applicants believe that claim 1 as currently amended and dependent claims 7-8 now comply with the 35 U.S.C. §112, first paragraph, written description requirement. Withdrawal of the rejections and reconsideration of the claims are respectfully requested.

##### **Enablement**

Claims 1, 7 and 8 are rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the enablement requirement. Applicants believe that claim 1 as currently amended and dependent claims 7-8 now comply with the 35 U.S.C. §112, first paragraph, enablement requirement. Therefore, withdrawal of the rejections and reconsideration of claims 1 and 7-8 is respectfully requested.

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**35 U.S.C. §102**

Claims 1, 7 and 8 are rejected under 35 U.S.C. §102(b) as being anticipated by JP 11-187879.

Claim 1 is directed toward an isolated nucleic acid molecule for a salt-tolerant L-myo-inositol 1-phosphate synthase from *Porteresia coarctata* (PINO1) comprising a nucleic acid SEQ ID 1.

Claim 1 is directed toward an isolated nucleic acid molecule for a salt-tolerant L-myo-inositol 1-phosphate synthase from *Porteresia coarctata* (PINO1) comprising the nucleic acid sequence of SEQ ID 1 or a nucleic sequence encoding protein comprising SEQ ID 3. Applicants respectfully traverse this rejection and request the withdrawal and reconsideration of the claims.

The final Office Action contends that JP 11-187879 teaches a nucleic acid encoding L-myo-inositol 1-phosphate synthase having 75% identity to SEQ ID 3 and vectors and bacteria comprising said nucleic acid. Presently amended claim 1 requires a nucleic acid sequence encoding a protein comprising SEQ ID 3. Therefore, JP 11-187879 that teaches a nucleic acid encoding L-myo-inositol 1-phosphate synthase having 75% identity to SEQ ID 3 would not anticipate/teach the limitation of claim 1 requiring a nucleic sequence encoding protein comprising SEQ ID 3. Because JP 11-187879 does not teach each and every element of claim 1, JP 11-187879 cannot anticipate claim 1. Withdrawal of the rejection and reconsideration of claim 1 is respectfully requested. Claims 7 and 8 depend from and further limit claim 1 and are believed to be patentable for at least the aforementioned reasons. Withdrawal of the rejection under 35 U.S.C. §102(b) and reconsideration of claims 1 and 7-8 are respectfully requested.

**35 U.S.C. §103**

Claims 3-6 have been rejected as being obvious over Raychaudhuri et al. in view of Yoshida et al., Temporal and Spatial Patterns of Accumulation of the Transcript of *Myo-Inositol 1-Phosphate Synthase* and Phytin-Containing Particles during Seed Development in Rice”, Plant Physiology 119:65-72 (Jan. 1999) (hereinafter “Yoshida”).

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Amended claim 3 is directed toward a process of obtaining cDNA encoding a salt-tolerant L-myo-inositol 1-phosphate synthase including: (i) isolation of a full-length cDNA for the L-myo-inositol 1-phosphate synthase gene from the leaf of *Porteresia coarctata* by reverse transcription followed by polymerase chain reaction; and (ii) sequencing of the isolated L-myo-inositol 1-phosphate synthase gene, wherein the sequenced synthase from *Porteresia coarctata* (PINO1) is encoded by a nucleotide sequence SEQ ID 1 and has a deduced amino acid sequence SEQ ID 3.

Raychaudhuri is directed toward a study of salinity-induced enhancement of L-myo-inositol 1-phosphate synthase in rice (*Oryza sativa* L) Yoshida et al. is applied for teaching methods of isolating the cDNA encoding the *Oryza sativa* L-myo-inositol 1-phosphate synthase.

The claimed invention would not be obvious in view of Raychaudhuri and Yoshida, since it is a discovery of Applicants that the nucleic acid and amino acid sequence of the tolerant L-myo-inositol 1-phosphate synthase for *Porteresia coarctata* is different from that of *Oryza sativa*, therefore, Applicants assert that the claimed invention would not be obvious in view of the teachings of Raychaudhuri and Yoshida.

Claims 4-6 depend directly or indirectly from and further limit claim 3 and are patentable for at least the aforementioned reasons. Removal of the rejection and allowance of claims 1, 3-8 are respectfully requested.

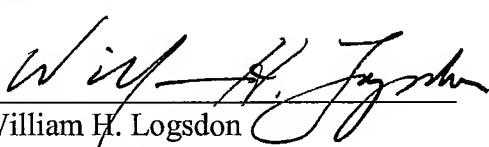
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**CONCLUSION**

In view of the foregoing amendments and remarks, it is respectfully submitted that currently pending claims 1 and 3-8 are in condition for allowance. Removal of the rejections and allowance of claims 1 and 3-8 are respectfully requested. If there are any remaining issues to be resolved, Applicants request that the Examiner contact the undersigned attorney for a telephone interview.

Respectfully submitted,  
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